

Notice of Allowability

Application No.

09/872,552

Examiner

Miranda Le

Applicant(s)

HO ET AL.

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 06/07/04.
2. ☒ The allowed claim(s) is/are 1-3, 7-12, 16-21, 25-27, now renumbered as 1-18.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Miranda Le
October 26, 2004

DETAILED ACTION

1. This communication is responsive to Amendment filed 06/07/2004. Claims 1, 10, 19 are independent claims. In the Amendment, claims 1, 6, 10, 15, 19, 24 have been amended, no claims have been canceled, or added.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Edward J. Grundler on October 28, 2004.

3. The application has been amended as follows:

- Cancel claims 5, 6.
- Claim 1 has been amended as:

A method for facilitating use of a collation element that supports a large number of characters, comprising:

receiving the collation element;

reading a primary weight value from a primary weight field within the collation element;

if the primary weight value falls within a reserved set of values, extending the primary weight field to include all bits within the collation element, wherein each different primary weight value in the extended primary weight value field identifies a

Art Unit: 2167

different character, whereby the size of the extended primary weight field increases the number of

characters that can be represented by the collation element; and

if the primary weight value is not within the reserved set of values,

reading a secondary weight value from the secondary weight field within the collation element, and

reading a tertiary weight value from the tertiary weight field within the collation element,

wherein the collation element is four bytes in size, of which the primary weight field is two bytes, the secondary weight field is one byte and the tertiary weight field is one byte, unless a value in the primary weight field belongs to the reserved set of values, in which case the primary weight field takes up all four bytes of the collation element,

wherein the reserved set of values for the primary weight value includes hexadecimal values OXFFFO-OXFFFF,

wherein the primary weight value identifies a character;

wherein the secondary weight value can specify an accent on the character; and

wherein the tertiary weight value can specify case information for the character.

- Cancel claims 14, 15.
- Claim 10 has been amended as:

A computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method for facilitating use of a collation

Art Unit: 2167

element that supports a large number of characters, the method comprising: receiving the collation element;

reading a primary weight value from a primary weight field within the collation element;

if the primary weight value falls within a reserved set of values, extending the primary weight field to include all bits within the collation element, wherein each different primary weight value in the extended primary weight value field identifies a different character, whereby the size of the extended primary weight field increases the number of characters that can be represented by the collation element; and

if the primary weight value is not within the reserved set of values,

reading a secondary weight value from the secondary weight field within the collation element, and

reading a tertiary weight value from the tertiary weight field within the collation element,

wherein the collation element is four bytes in size, of which the primary weight field is two bytes, the secondary weight field is one byte and the tertiary weight field is one byte, unless a value in the primary weight field belongs to the reserved set of values, in which case the primary weight field takes up all four bytes of the collation element,

wherein the reserved set of values for the primary weight value includes hexadecimal values OXFFFO-OXFFFF,

wherein the primary weight value identifies a character;

wherein the secondary weight value can specify an accent on the character; and

wherein the tertiary weight value can specify case information for the character.

Art Unit: 2167

- Cancel claims 23, 24.
- Claim 19 has been amended as:

An apparatus that facilitates use of a collation element that supports a large number of characters, comprising:

an assignment mechanism that is configured to read a primary weight value from a primary weight field within the collation element;

wherein if the primary weight value falls within a reserved set of values,

the assignment mechanism is configured to extend the primary weight field to include all bits within the collation element, wherein each different primary weight value in the extended primary weight value field identifies a different character, whereby the size of the extended primary weight field increases the number of characters that can be represented by the collation element; and

wherein if the primary weight value is not within the reserved set of values, the assignment mechanism is configured to,

read a secondary weight value from the secondary weight field within the collation element, and to

read a tertiary weight value from the tertiary weight field within the collation element,

wherein the collation element is four bytes in size, of which the primary weight field is two bytes, the secondary weight field is one byte and the tertiary weight field is one byte, unless a value in the primary weight field belongs to the reserved set of values, in which case the primary weight field takes up all four bytes of the collation element,

Art Unit: 2167

wherein the reserved set of values for the primary weight value includes hexadecimal values OXFFFO-OXFFFF,

wherein the primary weight value identifies a character;

wherein the secondary weight value can specify an accent on the character; and

wherein the tertiary weight value can specify case information for the character.

4. The following is an examiner's statement of reasons for allowance:

Prior art of record fails to teach a combination of elements including extending the primary weight value field to include all bits within the collation element, including the bits that were formerly used for secondary weight values specifying accents and tertiary weight values specifying case information, so that the extended primary weight value field can support more characters, and wherein the collation element is four bytes in size, of which the primary weight field is two bytes, the secondary weight field is one byte and the tertiary weight field is one byte, unless a value in the primary weight field belongs to the reserved set of values, in which case the primary weight field takes up all four bytes of the collation element, wherein the reserved set of values for the primary weight value includes hexadecimal values OXFFFO-OXFFFF.

In contrast, the closest prior art, Kennedy (US patent No. 5,675,818) teaches a substantially similar Database Management System having a Collation Engine using auxiliary tables to determine expansion of certain characters. However, Kennedy fails to teach using the secondary and tertiary weight fields to extend the primary weight field, and hence fails to anticipate or render the above-cited limitations obvious.

Art Unit: 2167

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

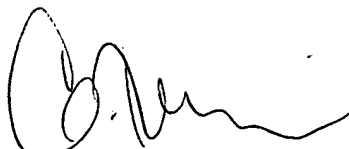
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (571) 272-4107. The fax number to this Art Unit is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Miranda Le
October 29, 2004



GRETA ROBINSON
PRIMARY EXAMINER